REMARKS

Examiner P. Perkins is thanked for the thorough examination and search of the subject Patent Application. The Examiner is thanked for allowing Claims 8-25.

All Claims are believed to be in condition for Allowance, and that is so requested.

Reconsideration of the rejection under 35 U.S.C. 103 of Claims 1-4 as being unpatentable over Jang et al in view of Sahota is requested in accordance with the following remarks.

In the first embodiment of the invention, claimed in Claim 1, during the sputtering step of the HDP-CVD process, the oxide layer within the isolation trenches is disconnected from the oxide layer overlying the etch stop layer. (e.g. Claim 1, lines 19-21. See also top of page 9 of the Specification and Fig. 4). Notice that the oxide layer within the trenches 22 is disconnected from the oxide layer 20 over the etch stop layer 14. This is a critical step, allowing the removal of the remaining oxide 20 overlying the etch stop layer during the subsequent steps without using a polishing process. In Jang et al, Fig. 2A, the oxide layer 50 fills the trenches and overlies the etch stop layer 24. The oxide layer 50 is planarized to flat surface 52. At this point, there is no oxide remaining over the etch stop layer. Thus, the oxide layer 50 within the trenches cannot be disconnected from the oxide layer over the etch stop layer (none). Neither of the references teach or suggest disconnecting the oxide layer within the trenches from the oxide layer overlying the etch stop layer.

Reconsideration of the rejection under 35 U.S.C. 103 of Claims 1-4 as being unpatentable over Jang et al in view of Sahota is requested in accordance with the remarks above.

Reconsideration of the rejection under 35 U.S.C. 103 of Claims 5 and 6 as being unpatentable over Jang et al in view of Sahota and further in view of Fu et al is requested in accordance with the following remarks.

It is agreed that Fu et al discloses removing the silicon nitride layer using hot phosphoric acid. Fu et al as well as the other references first uses CMP to remove the oxide layer outside of the trenches (col. 3, lines 28-32). None of the references teach or suggest disconnecting the oxide layer within the trenches from the oxide layer overlying the etch stop layer during the sputtering step of the HDP-CVD process.

Reconsideration of the rejection under 35 U.S.C. 103 of Claims 5 and 6as being unpatentable over Jang et al in view of Sahota and further in view of Fu et al is requested in accordance with the remarks above.

Reconsideration of the rejection under 35 U.S.C. 103 of Claim 7 as being unpatentable over Jang et al in view of Sahota and further in view of Hao et al is requested in accordance with the following remarks.

Hao et al also discloses a CMP process for removing the oxide layer outside of the trenches, although they do teach that etching back may be used. Hao et al does not teach or

suggest disconnecting the oxide layer within the trenches from the oxide layer overlying the etch stop layer during the sputtering step of the HDP-CVD process as claimed in Applicants' invention.

Reconsideration of the rejection under 35 U.S.C. 103 of Claim 7 as being unpatentable over Jang et al in view of Sahota and further in view of Hao et al is requested in accordance with the remarks above.

Allowance of all Claims is requested.

It is requested that should Examiner Perkins not find that the Claims are now Allowable that the Examiner call the undersigned at 765 4530866 to overcome any problems preventing allowance.

Respectfully submitted,

Rosemary L. S. Pike. Reg # 39,332